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ANNOTATED BIBLIOGRAPHY NO. 17

COMMONWEALTH INSTITUTE OF HELMINTHOLOGY

a. LÓPEZ-NEYRA, C. R.—"La *Fimbriaria fasciolaris* y sus relaciones con el *Diorchis acuminata*." No. 13, 131-156, 29 figs.

236—Mémoires de l'Université de Neuchatel.

a. FUHRMANN, O.—"Les ténias des oiseaux." VIII, 1-382, 147 figs., bibliography 25 pp. [1932.]

(a) Since Fuhrmann published his "Cestoden der Vögel" in 1908 our knowledge of the tapeworms of birds has been greatly increased. To-day there are 136 genera in place of 64 and instead of 495 species there are now known 875 found in more than 850 avian hosts.

The present monograph succinctly describes the generic characters and lists the various species. There is a very extensive host list and a bibliography supplementary to that issued in 1908. Two new genera *Baeriella* (for *B. proterogyna* t. sp., n. sp.) and *Paricterotaenia* (for *Choanotaenia* Fuhrmann 1907) are erected and new specific names are proposed for five preoccupied names, viz., *Choanotaenia southwelli, Diorchis jacobii, Hymenolepis joyeuxi*, H. *lintonella* and *H. woodsholei*. R.T.L.

324—Annales Musei Zoologici Polonici.

a. SZPOTAŃSKA, I.—"Kilka nowych lub mało znanych gatunków z podrodziny Hymenolepididae Fuhrmann (Cestodes)." IX (17), 247-266, 24 figs., 24 refs. [1932.]

(a) The cestodes recorded in this paper are *Drepanidotaenia bisacculina* n. sp., *D. curiosa* n. sp., *Hymenolepis rapida* n. sp., *H. globulosa* n. sp. and *Diorchis spiralis* n. sp. These tapeworms were found in *Chenopsis atrata* from Australia. *Echinorhynchotaenia nana* is renamed *Hymenolepis southwelli*. R.T.L.

251—Records of the Indian Museum.

a. MOGHE, M. A. & INAMDAR, N. B.—"Some new species of avian cestodes from India with a description of *Biuterina intricata* (Krabbe 1882)." XXXVI (1) 7-16. [1934.]

(a) Five new cestode species are described by Moghe and Inamdar as follows:—*Raillietina (Paroniella) malpastina* n. sp., *R. (Paroniella) duosyntesticulata* n. sp., *Ophryocotyloides monocantis* n. sp., *Diorchis magnicirrosa* n. sp., *Paruterina septotesticulata*, n. sp. A complete description is appended of *Biuterina intricata*, of which the gravid proglottids were described by Fuhrmann in 1908 under the name *Biuterina lobata*, synonymous with *Taenia intricata* Krabbe, 1882. E.M.S.

395—Report. Department of Agriculture, Government Research Institute, Formosa, Japan.

a. SUGIMOTO, M.—"Morphological studies on the avian cestodes from Formosa." No. 64, 52 pp. [1934.]

(a) In this paper on Formosan avian cestodes, which is in Japanese without diagnoses in a European language, Sugimoto describes and illustrates, *inter alia*, the following 5 new species: *Hymenolepis angularostris, H. giranensis, H. oshimai* and *Diorchis formosensis*, all from *Anas platyrhyncha*, and *D. crassicollis* from *Columba livia*. Fifteen previously known species are also illustrated. B.G.P.

383—Japanese Journal of Zoology.

b. YAMAGUTI, S.—"Studies on the helminth fauna of Japan. Part 6. Cestodes of birds, I." VI (2), 183-232. [1935.]

(383b) Of 32 avian cestodes described by Yamaguti 22 are new species. A new genus of *Taeniidae* is based on *Paracladotaenia accipitris* n. g., n. sp. in *Accipiter virgatus gularis* from Formosa. The other new species are: *Tetrabothrius lari, Cotugnia taiwanensis, Raillietina (Raillietina) pici, R. (R.) galli, R. (R.) taiwanensis, Killigrewia oenopopeliae, K. streptopeliae, Paronia pycnonoti, Dilepis turdi, D. capellae, Amoebotaenia oligorchis, Anomotaenia nycticoracis, Hymenolepis nyrocae, H. japonica, H. charadrii, H. taiwanensis, Haploparaxis japonensis, H. scolopacis, H. clerci, Diorchis nyrocae* and *Cladotaenia circi*. R.T.L.

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343—Philippine Journal of Science.

a. TUBANGUI, M. A. & MASILUÑGAN, V. A., 1937.—"Tapeworm parasites of Philippine birds." 62 (4), 409-438.

(343a) Tubangui & Masiluñgan have obtained 19 species of cestodes from birds in the Philippine Islands. Of these 15 are new to science and 8 of these belong to the genus *Raillietina* in its widest sense. They are *R. daetensis* n. sp. from *Treron* sp.; *R. sequens* n. sp. from the columbiform bird *Streptopelia dussumieri*; *R. torquata* (Meggitt, 1924) var. *rajae* n. var. from a pigeon; *R.* (*Paroniella*) *tinguiana* n. sp. from a wild *Gallus gallus*; *R.* (*P.*) *cirroflexa* n. sp. from a woodpecker, *Lichtensteinipicus funebris*; *R.* (*P.*) *coronea* n. sp. from a crow, *Corone philippina*; *R.* (*P.*) *culiauana* n. sp. from an oriole, *Oriolus acrorhynchus*; and *R.* (*P.*) *bulbularum* n. sp. from *Pycnonotus goiavier*. The other new species are *Cotugnia ilocana* n. sp. obtained from *Streptopelia dussumieri*, and *C. rimandoi* n. sp. from a pigeon. The Hymenolepididae are represented by *Hymenolepis coronoidis* n. sp. from a crow; *H. pycnonoti* n. sp. from *Pycnonotus goiavier*; and *Hymenolepis* sp. (two poor specimens only) from *Iole gularis*; *Diorchis visayana* n. sp. from *Gallinula chloropus*; and *Haploparaxis sanjuanensis* n. sp. from *Gallinago megala*. A buzzard, *Butastur indicus*, provides the new species *Kowalewskiella buzzardia* n. sp. *Aporina delafondi*, *Fuhrmanniella clerci* and *Gyrocoelia paradoxa* are recorded for the first time from the Islands. P.A.C.

732—PAPERS ON HELMINTHOLOGY published in commemoration [cont.] of the 30 year jubileum of K. J. Skrjabin and of 15th anniversary of the All-Union Institute of Helminthology. Moscow, 1937.

el. UDINTSEV, A. N., 1937.—"*Diorchis skrjabini* n. sp., a new cestode parasite of *Anas circia* L." pp. 735-738. [In Russian.]

388—Records of the Indian Museum.

d. JOHRI, L. N., 1939.—"On two new species of *Diorchis* (Cestoda) from the Indian Columbiformes." 41 (2), 121-129.

(388d) *Diorchis alvedea* n. sp. and *D. chalcophapsi* n. sp. are described and the different characters of the 20 species of the genus *Diorchis* are tabulated. R.T.L.

338—Journal of Parasitology.

p. LONG, L. H. & WIGGINS, N. E., 1939.—"A new species of *Diorchis* (Cestoda: Hymenolepididae) from the canvasback." 25 (6), 483-486.

(338p) *Diorchis nyrocae* n. sp. occurs in *Nyroca valisneria* in Oklahoma. It is differentiated from *D. acuminata*. R.T.L.

438—American Midland Naturalist.

c. STEELMAN, G. M., 1939.—"A new cestode, *Diorchis longibursa*, from the coot." 22 (3), 637-639.

(438c) Steelman describes and figures *Diorchis longibursa* n. sp. from *Fulica americana americana*. The length of the hooks and the great relative length of the cirrus pouch differentiate the new species from other members of the genus. A.E.F.

237—American Midland Naturalist.

b. SCHULTZ, R. L., 1940.—"The genus *Diorchis* Clerc 1903." 23 (2), 382-389.

(237b) Schultz has examined the genus *Diorchis* and gives a key for the identification of the species and a host list. *Diorchis americana turkestanica* Skrjabin, 1914, is recognized as a distinct species. Specimens identified by Ransom in 1909 as *D. acuminata* are listed as a separate species, *D. ransomi* nom. nov., and *D. wigginsi* nom. nov. is made for *D. nyrocae* Long & Wiggins, 1939, pre-occupied. P.A.C.

93—Revue Suisse de Zoologie.

a. SCHMELZ, O., 1941.—"Quelques cestodes nouveaux d'oiseaux d'Asie." 48 (1), 143-199.

(93a) An examination of helminths from a variety of Asiatic birds has revealed 9 new species. Schmelz describes these and also discusses the genera *Cladotaenia* and *Paracladotaenia*. *Paronia bocki* n.sp., from *Megalaema virens* and *Cyanops ramsayi*, is distinguished by the fact that in the mature state the uterus is single, by the testes which number at least 200, and by its long cirrus sac. *Davainea baeri* n.sp., from *Gecinus nigrigenis*, may have as many as 37 segments, has unilateral genital pores, a large number of hooks but few testes. *Raillietina (R.) fausti* n.sp., from *Gecinus canus*, has a double crown of hooks of different lengths, has 18 to 20 testes and a uterus which breaks up into 50 egg sacs. *R. (R.) clairae* n.sp., also from *G. canus*, has a very small head, rostellum and suckers—the egg sacs lie within the field bounded by the excretory canals. *R. (Paroniella) siamensis* n.sp., from *Thereiceryx lineatus* and *T. phaeostriatus*, is recognised by the shape of the rostellar hooks: it has no internal seminal vesicle. *R. (P.) pinsonae* n.sp., from *Gecinus nigrigenis* and *G. chirrolophus*, is a small worm with fewer than 180 rostellar hooks. The uterine capsules are completely separate. *Biuterina fuhrmanni* n.sp., from *Emberiza aureola*, may have as many as 28 testes. It has a single crown of hooks, all of the same size. *Hymenolepis linderi* n.sp., from *Syrrhaptes paradoxus*, has an unarmed rostellum, while *Diorchis anomala* n.sp., from *Anas* sp., can be distinguished by the size of its hooks and cirrus sac. P.A.C.

65—Transactions of the American Microscopical Society.

c. JONES, A. W., 1944.—"*Diorchis reynoldsi* n.sp., a hymenolepidid cestode from the shrew." 63 (1), 46-49.

d. JONES, A. W., 1944.—"*Diorchis ralli* n.sp., a hymenolepidid cestode from the king rail." 63 (1), 50-53.

(65c) Jones describes *Diorchis reynoldsi* n.sp. from *Blarina brevicauda* in Virginia. It is characterized by the possession of 100 small rostellar hooks. P.A.C.

(65d) *Diorchis ralli* n.sp. is a parasite of *Rallus elegans* in Virginia. There are certain small morphological distinctions in the adult worm, but the most interesting feature is seen in the onchosphere. There are the usual 3 pairs of hooks, but the medial hook is twice as thick as the lateral hook. P.A.C.

630—COLLECTED PAPERS ON HELMINTHOLOGY DEDICATED BY HIS PUPILS TO K. I. SKRYABIN IN HIS 40TH YEAR OF SCIENTIFIC, EDUCATIONAL AND ADMINISTRATIVE ACHIEVEMENT.

bh. MATEVOSYAN, E. M., 1946.—[New cestodes of birds in Russia.] pp. 178-188. [In Russian.]

(630bh) In his studies on the helminths of birds from various localities in Russia, Matevosyan describes and illustrates *Hymenolepis skrjabini* n.sp. from *Nyroca ferina*; *Dicranotaenia coronula* subsp. *micracantha* n.subsp. from domestic ducks, *Nyroca fuligula, N. marila, Anas penelope* and *A. platyrhynchos*; *D. pseudocoronula* n.sp. from domestic ducks, *Nyroca fuligula* and *Melanitta fusca*; *D. kutassi* n.sp. from *Nyroca marila*; *D. andrejewoi* n.sp. from *Melanitta fusca*; *Aploparaksis pseudofurcigera* n.sp. from *Anas platyrhynchos*; *Diorchis (Diorchis) parvogenitalis* n.subg., n.sp. from *Nyroca ferina, N. fuligula* and *Anas crecca*; and *Lateroporus skrjabini* n.sp. from *Nyroca marila*. The type of *Diorchis (Diorchis)* n.subg. is *D. (D.) skrjabini* Udintsev, 1937, and of *D. (Nudiorchis)* n.subg. is *D. (N.) bulbodes* Mayhew, 1929. C.R.

1404—Trudi Gelmintologicheskoi Laboratorii. Akademiya Nauk SSSR.

b. SKRYABIN, K. I. & MATEVOSYAN, E. M., 1948.—[Hymenolepididae of mammals.] 1, 15-92. [In Russian.]

(1404b) Skryabin & Matevosyan discuss the structure, biology, geographical distribution and ecology of hymenolepidids from mammals. 78 species representing 8 genera are described and figured. *Cryptocotylepis anthocephalus* n.g., n.sp. from *Blarina brevicaudata* differs from *Dicranotaenia* and *Vigisolepis* in having deep slit-like suckers with strong processes between them and a rudimentary scolex; *Pseudodiorchis* n.g. in which the lip of the terminal sucker of the proboscis is armed with one row of numerous hooks is proposed for *Diorchis reynoldsi*. [No differential diagnosis is given.] A host list and 89 references are given. C.R.

1460—Trudi Gelmintologicheskoi Laboratorii. Akademiya Nauk SSSR.

q. SUDARIKOV, V. E., 1950.—[New cestodes of birds in the Middle Volga basin.] 3, 142–151. [In Russian.]

w. SPASSKAYA, L. I., 1950.—[New hymenolepidids of birds on the Lake Chany.] 3, 199–205.

(1460q) Sudarikov gives illustrated descriptions and differential diagnoses for 4 new intestinal cestodes of birds collected in 1929–30 in the Gorkov area. (i) *Bluterina sobolevi* n.sp. from *Saxicola ruberta* possesses 42 rostellar hooks and is generally nearest to *B. planirostris*; (ii) *Dicranotaenia spasskii* n.sp. from *Coracias garrulus* is 8·1mm. long, has a long, pear-shaped cirrus bursa, an unarmed cirrus, no Fuhrmann's body and rostellar hooks 0·021mm. in length; (iii) *Diorchis* (*Nudiorchis*) *oschmarini* n.sp. from *Fulica atra*, with a rostellar hook size of 0·024 to 0·026mm. is nearest to *D.* (*N.*) *acuminata*, *D.* (*N.*) *jacobii* and *D.* (*N.*) *microcirrosa*; (iv) *Hymenolepis cavoarmatus* n.sp. from *Turdus pilaris* has "diorchoid" type hooks 0·046 to 0·048mm. in length and is differentiated from species with similar hooks. G.I.P.

(1460w) Three new hymenolepidids are described from birds on Lake Chany. *Aploparaksis skrjabinissima* n.sp., from *Tringa glareola*, differs from *A. skrjabini* by the smaller hooks and suckers which are half the size. *A. octacantha* n.sp. from *Calidris temminckii* has, similarly to *A. australis*, a crown of 8 hooks but differs from the latter by the larger size of the hooks (0·027mm.) and the cirrus bursa which is 0·092mm. long *Diorchis* (*Diorchis*) *sobolevi* n.sp. from *Fulica atra* is characterized by the presence of a well-developed cirrus stylet with a broad end. G.I.P.

1432—Trudi Gelmintologicheskoi Laboratorii. Akademiya Nauk SSSR.

m. KROTOV, A. I., 1949.—[Hymenolepididae of Anseriformes in the U.S.S.R.] 2, 99–109. [In Russian.]

(1432m) The material from 12 species of Anseriformes in the area of Lake Chany contained 26 species of cestodes including 6 new ones which are described and figured: (i) *Dicranotaenia bisacculata* n.sp. from *Nyroca ferina* differs from the 3 species in the genus with 8 hooks of skrjabinoid type in having 2 accessory sacs in the deep genital bursa; (ii) *Diorchis* (*D.*) *vigisi* n.sp. from *Anas crecca* differs from the known species in the subgenus in having 8 rostellar hooks and in their shape and size (0·025 mm. long); (iii) *D.* (*D.*) *mathevossianae* n.sp. from *N. ferina* and *Clangula clangula* is characterized by 8 rostellar hooks 0·020 mm. in length; (iv) *D.* (*D.*) *tshanensis* n.sp. from *A. strepera* is characterized by the hook size (length 0·055 mm.) and further differs from *D.* (*D.*) *americana* in hook shape and the small size of the genital bursa; (v) *D.* (*D.*) *abuladze* n.sp. from *A. clypeata* differs from *D.* (*D.*) *skrjabini* in the hook size (0·025 mm.) the position, shape and relative size of the testes and in the size of the genital bursa and from *D.* (*D.*) *nyrocae* in the hook size and in that the genital bursa reaches only to the poral excretory ducts; and (vi) *Skrjabinoparaksis tatianae* n.g., n.sp. from *A. clypeata*. The new genus differs from *Aploparaksis*, the only other genus in the tribe Aploparaksaea, in the armature of the suckers, in the small number (up to 16) of eggs in the uterus and in that the male and female organs are formed almost simultaneously. The following are new host records: *Hymenolepis gracilis*, *Dicranotaenia collaris*, *D. octacantha* and *Diorchis parvogenitalis* in *Anas querquedula*; *H. megalops* in *A. strepera*; *H. microsoma* and *Dicranotaenia collaris* in *C. clangula*; *Drepanidotaenia lanceolata* and *D. bilateralis* in *Anser anser*; *D. bilateralis*, *Diorchis ransomi* and *D. acuminata* in *N. ferina*; *Aploparaksis fursigera* in *Anas acuta* and *A. formosa*; and *Fimbriaria fasciolaris* in *A. formosa* and *A. strepera*. *H. anseris* is registered for the first time for the U.S.S.R. G.I.P.

a. SINGH, K. S., 1952.—" Cestode parasites of birds." 4 (1), 1–72.

(688a) Thirty-one species of helminths were collected from 216 birds belonging to 20 species in the neighbourhood of Lucknow. Twenty-two were new species of which three are made genotypes of new genera. *Aporina percnopteri* n.sp. from *Neophron percnopterus* has 55–77 testes, the cirrus pouch is more than half the distance from the edge of the segment to the longitudinal excretory duct, the uterus is V-shaped and later on, sac-like. The ovary is in the middle of the proglottis. *Cotugnia dayali* n.sp. from *Psittacula eupatria* differs from *C. brotogerys* in the size of the suckers, breadth of strobila and size of receptaculum seminis. Each egg capsule contains a single egg. *Vitta swifti* n.sp. from *Micropus affinis* resembles *V. minutiuncinata* but the vagina crosses the cirrus pouch and opens anterior to the male genital pore, the testes number 50–90, the large cirrus pouch extends much beyond the excretory ducts and the strobila, suckers, rostellum and receptaculum seminis are of different size. *Paricterotaenia milvi* n.sp. from *Milvus migrans* differs from other species with ten hooks only in the size of the hooks (0·031 mm. long) and the number of testes (9–10) which are anterior to the ovary. *Lapwingia reticulosa* n.g., n.sp. from *Lobipluvia malabarica* is a new genus of Dilepididae in which the rostellum has a double crown of hooks of equal size, the genital pores alternate irregularly, the genital ducts pass in between the longitudinal excretory ducts, the testes are not many (20–25) and are placed posteriorly, the uterus is reticulate and persistent. *Dilepis ardeolae* n.sp. from *Ardeola grayi* differs from the other species of this genus in the size of the hooks, size and disposition of the testes and the size of the cirrus pouch. *Neoliga diplacantha* n.g., n.sp. (type species) from *Micropus affinis* resembles *Liga* but differs in the larger number of testes (about 20) situated both lateral and dorsal to the ovaries, and in having a lobed ovary. The eggs have no polar caps. A dumb-bell shaped organ is present at the junction of the vagina and the receptaculum seminis. The genital pores alternate regularly. *Neoangularia ababili* n.g., n.sp. from *Micropus affinis* has an unarmed rostellum and the genital pores alternate regularly; there are many testes; a dumb-bell shaped organ is present; the uterus is sac-like. *Choanotaenia hypoleucia* n.sp. from *Tringa hypoleucos* is differentiated from each of the other species which also have one row of hooks by the size of the strobila, the number and size of rostellar hooks, the number of testes etc. *Anonchotaenia gaugi* n.sp. from *Turdoides somervillei* differs from all known species in the position and the number of testes (12–13) and the position of the ovary which is on the poral side. *Notopentorchis micropus* n.sp. from *Micropus affinis* differs from the only known species, *N. collocaliae*, in the shape of the hooks and their size, the size of the cirrus pouch, the kidney shape of the ovary, the single uterus and the development of the paruterine organ. The following five species of *Hymenolepis* are described as new and are based chiefly on differences in size of strobila, scolex, egg, and size and shape of the rostellar hooks, viz., *H. gaugi* n.sp. from *Turdoides somervillei*, *H. ababili* n.sp. from *Hirundo rustica*, *Hymenolepis magna* n.sp. from *Acridotheres tristis*, *H. makundi* n.sp. from an unidentified wild duck and *H. crecca* n.sp. from *Nettion crecca*. *Echinocotyle hypoleuci* n.sp. from *Tringa hypoleucos*, *E. glareolae* n.sp. from *T. glareola* and *E. minutissima* n.sp. from *Querquedula circia* are specifically distinct in size of strobila and rostellar hooks. In the last-named species there are no spines in the middle of the suckers. *Diorchis tilori* n.sp. from *Acridotheres tristis* differs from the other 23 species of *Diorchis* in size of rostellar hooks, relative size of cirrus pouch and of receptaculum seminis. Immature *D. americana* Ransom, 1909 were collected from the Indian moorhen, *Gallinula chloropus*. *D. turkestanica* is considered to be a synonym of *D. americana*. *Aploparaksis tringae* n.sp. from *Tringa hypoleucos* is differentiated by the shape of the hooks and the extension of the cirrus pouch to the aporal excretory ducts. *Progynotaenia longicirrata* n.sp. from *Lobipluvia malabarica* is differentiated from *P. anaginata*, *P. edlmeri* and *P. jagerskiöldi* by the number, size and shape of the hooks and the size of the cirrus pouch. The following known species are also recorded and figured from Indian birds: *Anonchotaenia dendrocitta*, *Vitta magnuncinata*, *Diorchis americana*, *Tofula birchini*, *Acoleus vaginatus*, *Davainea himantopodis*, *Echinocotyle nitida*, *E. rosseteri* and *Paricterotaenia coronata*. R.T.L.

961—Trudi Gelmintologicheskoi Laboratorii. Akademii Nauk SSSR.

f. SPASSKI, A. A., 1952.—[On the nomenclature of the genus *Diorchis* (Cestoda: Hymenolepididae).] 6, 74–75. [In Russian.]

(961f) The genus *Diorchis* Clerc, 1903 is now subdivided into two subgenera: (i) *Diorchis* Clerc, 1903 (syn. *Nudiorchis* Matevosyan, 1941) with type species *D.* (*D.*) *acuminata* (Clerc, 1902) (syn. *Drepanidotaenia acuminata* Clerc, 1902 and *Diorchis* (*Nudiorchis*) *acuminata* (Clerc, 1902) Matevosyan, 1941) and (ii) *Acanthodiorchis* n.subg. (syn. *Diorchis* Matevosyan, 1941) with type species *Diorchis* (*Acanthodiorchis*) *skrjabini* Udintsev, 1937. R.T.L.
G.I.P.

b. DUBININA, M. N., 1953.—[Cestodes of birds nesting in western Siberia.] 15, 117–233. [In Russian.]

(868b) In the Barabinsk forest plains, of 2,137 birds from 14 orders examined, 53·5% were infected with cestodes. 114 species including ten new species were found. *Hymenolepis monoposthe* n.sp. is described from *Bucephala clangula* and *Netta rufina* and also includes seven specimens from *N. rufina* which were mistakenly identified by Dubinina in 1950 as *H. arcuata*. This new species resembles *Diplopostheae laevis*, but has only one cirrus per segment. The author uses *Hymenolepis* in the sense of Fuhrmann (1932) and *Dicranotaenia* as its synonym. *H. formosa* n.sp. from *Nyroca ferina* and *N. fuligula* differs from *H. jägerskiöldi* in having smaller hooks (0·034–0·038 mm. long), a very long protrusible rostellum, a short cirrus sac and a straight uterus. *H. quasioweni* n.sp. found in *Philomachus pugnax*, *Calidris temminckii*, *Tringa totanus* and *T. glareola* differs from *H. oweni* only in the position of the hooklets, which are in the centre of the suckers. *Drepanidotaenia spinulosa* n.sp. from *Netta rufina* is differentiated from other species of this genus by the presence of spines on the suckers and the length of the rostellar hooks (0·088–0·1 mm.). *Aploparaksis endacantha* n.sp. from *Anser acuta* is characterized by the presence of numerous hooklets in the cavity of the suckers. *Diorchis* (*Diorchis*) *tringae* n.sp., found in *T. totanus*, differs from *D.* (*D.*) *sobolevi* in the length of the rostellar hooks (0·036–0·039 mm.) and in the possession of a much shorter cirrus sac and a bilobed ovary. *Anomotaenia paramicrorhyncha* n.sp. from *T. stagnatilis*, *T. totanus*, *T. glareola* and *T. nebularia* resembles *A. microrhyncha* in scolex characters, but has only 12 to 15 testes, a protruding genital bursa and the length of the blade of the hooks is equal to that of the base. *A. hydrochelidonis* n.sp. found in *Hydrochelidon leucoptera* and *Larus minutus* differs from *A. micracantha* in the shape and size of the hooks which are 0·017–0·02 mm. long. *A. riparia* n.sp. in *Riparia riparia* is distinguished from other *Anomotaenia* species from Passeriformes by the hooks, which are 0·056–0·058 mm. long, 56 to 60 in number and similar in shape to those of *Dilepis undula*. *D. glareola* n.sp. from *T. glareola* resembles *D. limosa* in the shape of hooks, which however are almost one third the size. The species also differ in the morphology of the ripe proglottides. The author lists the parasites under their hosts and discusses the dependence of the cestode fauna on the food and the migration of birds, and the significance of cestodes in poultry farming. G.I.P.

48—Proceedings of the Helminthological Society of Washington.

b. SCHILLER, E. L., 1953.—"Studies on the helminth fauna of Alaska. XIV. Some cestode parasites of the Aleutian teal (*Anas crecca* L.) with the description of *Diorchis longiovum* n.sp." 20 (1), 7–12.

(48b) Four cestode species were collected from 20 *Anas crecca nimia* on Amchitka, one of the Aleutian Islands: *Hymenolepis collaris*, *Fimbriaria fasciolaris*, *Diorchis acuminata* and, on one occasion, *D. longiovum* n.sp.; this new species is characterized by the differential spination of the pocket and margin of the suckers, and the elongate spindle-shaped eggs with long filamentous processes. This brings the number of species of *Diorchis* to 29 of which only *D. reynoldsi* occurs in a mammalian host: as an examination of this type specimen showed that there are three, not two, testes, and as the rostellar hooks number over 100, it is transferred to *Hymenolepis*. *D. nyrocae* of Long & Wiggins, 1939 *nec* Yamaguti, 1935 and *D. longae* of Schmelz, 1941 are shown to be synonyms of *D. wigginsi* Schultz, 1940. The paper concludes with a discussion of the function of the excretory system in a cestode. The occurrence of immature eggs within the ventral excretory canal of the proglottides throughout the strobila suggests that the excretory system may also serve to maintain hydrostatic pressure and regulate the water balance within the worm. R.T.L.

330—Acta Parasitologica Polonica.

a. CZAPLIŃSKI, B., 1956.—"Hymenolepididae Fuhrmann, 1907 (Cestoda) parasites of some domestic and wild Anseriformes in Poland." 4 (8), 175–373. [Polish & Russian summaries pp. 359–373.]

(330a) This work on Hymenolepididae of domestic and wild Anseriformes in Poland deals with 34 species found in nine kinds of birds. There are 17 new host records. Twelve species are reported for the first time from Poland and five species are new: (i) *Diorchis* (*Diorchis*) *stefańskii* n.sp. from the domestic duck and goose, the wild duck, *Chaulelasmus streperus* and *Nyroca rufa*; (ii) *D.* (*Nudiorchis*?) *danutae* n.sp. from *N. rufa*; (iii) *Hymenolepis paracompressa* n.sp. from the domestic duck and goose, the wild duck, *N. rufa*, *N. ferina* and *Querquedula querquedula*; (iv) *H. spiralibursata* n.sp. from the wild duck, *N. rufa*, *N. ferina* and *Q. querquedula* and (v) *Sobolevicanthus wisniewskii* n.sp. from *N. rufa* and *N. ferina*. Using his own material and data from the literature Czapliński presents a systematic account of the tapeworms, giving their synonyms, hosts, geographical distribution, frequency and time of occurrence and describing and illustrating their morphology. He has analysed the present systematic conceptions proposed for hymenolepidids, but in view of the incomplete knowledge of their morphology and biology suggests that the genus *Hymenolepis* Weinland, 1858 *sensu lato* should be retained for most avian tritesticular hymenolepidids, acknowledging *Echinocotyle*, *Orlovilepis*, *Sobolevicanthus*, *Sphenacanthus*, *Dicranotaenia* and *Drepanidotaenia* (the last three as diagnosed by Spasski & Spasskaya, 1954) as independent genera. *Tschertkovilepis setigera*, the only species in this genus, is placed in *Hymenolepis* s.l. and *Bisaccanthes bisaccata*, the only species in its genus, is transferred to *Sobolevicanthus*, which also contains *S. krabbeella* (Hughes, 1940) n.comb. and *S. stolli* (Brock, 1941) n.comb. The author makes the following synonyms: *Aploparaksis pseudofurcigera* of *A. furcigera*; *Drepanidotaenia lobata* of *D. lanceolata*; *Hymenolepis globulosa* of *H. teresoides*; *H. villosoides* of *H. arcuata*; and *Dicranotaenia coronula micracantha*, *D. pseudocoronula*, *Weinlandia macrostrobiloides*, *W. introversa*, *H. mergi* and

543—Trudi Gelmintologicheskoi Laboratorii. Akademiya Nauk SSSR (cont.)

z. SHAKHTAKHTINSKAYA, E. M., 1956.—[The helminth fauna of domestic aquatic birds and aquatic birds of economic importance in Azerbaijan SSR.] [Abstract of thesis.] 8, 285–286. [In Russian.]

(543z) This is an abstract of a thesis based on the examination during 1949–50 of 1,044 aquatic birds representing 43 species from various areas of Azerbaijan during which 136 helminths [not named in the abstract] were found and of which 92 were new for Azerbaijan and 22 were new for Russia. Of ten species listed, three have already been named and described by the author in 1949 and 1950; the others are *Echinochasmus mathevossiani* n.sp. and *Diorchis skarbilowitschi* n.sp. from *Colymbus cristatus*, *Leptotaenia skrjabini* n.sp. and *Dicranotaenia eranui* n.sp. from *Phoenicopterus roseus*, *Amidostomum petrowi* n.sp. and *Prosthorhynchus gallinagi* n.sp. from *Capella gallinago* and *Epomidiostomum petrowi* n.sp. from *Fulica atra*. All the helminths found are said to be described in detail in the thesis. G.I.P.

490—Acta Parasitologica Polonica.

f. RYBICKA, K., 1957.—"Three species of the genus *Diorchis* Clerc, 1903 occurring in European coot (*Fulica atra* L.)." 5 (13/21), 449–479. [Polish summary pp. 478–479.]

(490f) A high proportion of the *Fulica atra* and a few of the *Gallinula chloropus* examined on Lake Drużno in Poland were infected with *Diorchis ransomi*, *D. inflata* and *D. brevis* n.sp. [a footnote states that this species was originally named *D. brevicirrosa* by the author in a preliminary note in *Wiadomości Parazytologiczne*, 1956, 2 (5), but that the original diagnosis was insufficient and the name is therefore a nomen nudum]. *D. brevis* is similar to *D. inflata*, but measures 22 mm. to 70 mm. in length when mature and the cirrus is 0·04 mm. to 0·06 mm. long, with a spherical swelling which is uniformly covered by large spines, while *D. inflata* measures 150 mm. to 200 mm. in length and the cirrus is ten times longer with only the basal part of an elongated swelling covered by spines. The specimens recorded by Joyeux & Baer in 1936 and by Dubinina in 1953 as *D. inflata* may be identical with *D. brevis* but their incomplete descriptions prevent full identification. Attempted infection of all potential ostracod and copepod hosts present in Lake Drużno was successful in *Cypridopsis vidua* with all three *Diorchis* species. A description of the cysticercoids is followed by a discussion on the host specificity of various *Diorchis* species in relation to their independent existence. G.I.P.

1—Acta Parasitologica Polonica.

b. RYBICKA, K., 1958.—"O rozwoju larw tasiemca *Diorchis ransomi* Schultz, 1940 (Hymenolepididae) w żywicielu pośrednim." 5 (22/29), 613–644. [English summary pp. 642–644.]

(1b) The larval development of *Diorchis ransomi* in *Cypridopsis vidua* was found to be of the type described for hymenolepidids in copepods. The formation of the rostellum and hooks was similar to that in larvae of the cysticercus and echinococcus types. Ten spines from the primary crown of cuticular spines developed into the adult hooks, the remaining ones atrophied. In experimental conditions, 83% of *C. vidua* became infected with one to 18 larvae and the incidence and degree of infection did not directly depend on the length of exposure. The difference in the speeds of development of single larvae in the same population did not depend on the size of the population. The size of cercocysts decreased with increasing size of populations, but was independent of the rate of development. G.I.P.

540—YAMAGUTI, S., 1959. "Systema helminthum. Vol. II. The cestodes of vertebrates." New York & London: Interscience Publishers, Inc., vii+860 pp.

This book "is designed primarily for laboratory workers in the field of helminthology, for use in determining the generic identity of the helminths with which they are dealing". Four pages are given to a general morphological account with a brief list of larval forms occurring in the principal orders. Each of the subsequent chapters is concerned with the tapeworms from fishes, amphibians, reptiles, birds and mammals respectively. The families, genera and species within each order are treated alphabetically except that the type genus is always mentioned first. In a chapter entitled "Systematic survey of the cestodes of vertebrates and their host relationships" is found a list of orders, families, sub-families, genera and sub-genera, arranged in an order identical to that in the first chapters, with a conventional letter facing the genus to indicate the host group.

The bibliography occupies 159 pages and is incomplete although the book is said to include "all the recent advances in the field of systematic helminthology up to February 1959"! The illustrations occupy 140 pages and the 584 figures are grouped into 70 plates irrespective of any possible affinities of the species included on the same plate. The figures are reproduced photographically from the original drawings and greatly reduced. In most cases the result is unsatisfactory and at least 50 figures are useless even to a specialist; some are out of focus and a few upside-down (figs. 85, 161, 302e). The original lettering of the figures has been retained so that abbreviations appear, when legible, in German, French and English. The really important details cannot be seen in most figures and it is astonishing that such an expensive book could be so poorly illustrated. The book closes with an alphabetical index of 91 pages.

nique, state of preservation or maceration [illegible] result. Many of the older descriptions are, by modern standards, insufficient and in most cases the original material is no longer available. Faulty technique and badly preserved material are the commonest causes of many of the [illegible] reason, the establishment of new genera based upon such descriptions and without the original material being investigated should be officially discouraged. Of the 31 new genera created by Yamaguti, all but two are based on other [illegible] creation of new genera for species which are inexistent, e.g. *Oschmarenia* n.g., made for *Ptychobothrium armatum* from a bird, which species was recognized by its author more than 30 years ago as based on a wrong host, the true host being a Nile fish. *Johria* n.g. is based on a description of a worm devoid of a testes and of which the uterus is unknown. *Aporodiorchis* n.g. is proposed for *Hymenolepis unicestellum*=*Orthocanthus polyacanthus*=*H. integra*. *Allohaploparaxis* n.g., for *H. sagitta*, is said to lack an external seminal vesicle and yet this is apparent in the original figure reproduced by Yamaguti (fig. 247). *Diorchis occlusa* is an obvious synonym of *H. liguloides* but is made type of *Aporodiorchis* n.g.

The 20 new genera introduced by Yamaguti into the family Hymenolepididae confound the confusion that has already been created by the Russian authors and in no way further a clear understanding of this difficult group. Critical systematic work previously accepted by leading authorities is not even mentioned. *Diplogynia* is correctly placed in Hymenolepididae but *Diplòposthe* and *Jardugia* are relegated, together with the unrelated genus *Diplophallus*, to the family Diploposthidae. The genus *Skorikowia*, a synonym of *Haploparaxis* is reinstated based on Linstow's description but Yamaguti has ignored the fact that Fuhrmann re-examined the type and found one not two testes as stated by Linstow. *Acanthocirrus* is once again put into synonymy with *Gryphorhynchus* even though the two genera have been shown to be quite distinct. Recent publications based on type material have demonstrated that *Southwellia* is founded on a faulty description; that *Multicapsiferina* is a composite species made up of several different fragments; that *Tetracisdicotyla* is a synonym of *Crepidobothrium*; that *Sobolevina* is a synonym of *Ascometra*; that *Unciunia* is a synonym of *Choanotaenia*; that *Spirometra* is a sysnonym of *Luehella*, etc. . . . But these are ignored.

Amongst the hosts of "*Octopetalum*" *numidae* is listed *Porogynia paronai*, a tapeworm. *Mesocestoides dissimilis* from *Myonax* (Carnivora) is attributed to a bird. On page 224, in a footnote, Yamaguti mistakenly attributes to the reviewer the misspelling of *Otiditaenia*, namely *Ophiotaenia*.

One finds amongst the species grouped within the genera many synonyms which were relegated as such several years ago, after re-examination of the types. For example the numerous species attributed to the genus *Raillietina* and shown to be synonyms of *Inermicapsifer arvicanthidis*=*I. madagascariensis* are listed under *Raillietina*.

The unfortunate laboratory worker confronted with a tapeworm from a dog will wonder how to identify it when he knows nothing of its larval form (p. 436). On the other hand the same key states "larva unknown" and refers to *Cladotaenia* (p. 441) where the larva is said to have been described by Markowski!

The Caryophyllaeidea are included in the Cestodaria, an arrangement that was shown 30 years ago to be based on wrong premises. For some undisclosed reason, Yamaguti does not believe that the scolex of *Haplobothrium* bears four proboscides. The whole treatment of the Tetraphyllidea of Elasmobranchs is out of date since the publication of Euzet's monograph based on freshly collected material. Trilocullariidae n.fam. has no taxonomic value since it is based on the erroneous assumption that the genital pore is at the posterior end of the segment, a mistake already corrected by Euzet (1952) in a paper not cited in the bibliography.

It is somewhat surprising to find no mention whatever of host specificity, a fundamental biological character of tapeworms that has been amply demonstrated since 1869 when it was first discovered by Krabbe.

Yamaguti's *Systema Helminthum* is an ambitious work bearing the same title as Diesing's book published nearly a century ago. But where Diesing produced a critical taxonomic system the present book is a compilation of material which has been accepted at its face value, not treated critically and arranged in alphabetical order. Is this to be called a system in the usual taxonomic sense?

Jean G. Baer

[The following new taxa are proposed in this volume: (i) families—Adelobothriidae, Cephalochlamydidae, Maccallumiellidae, Parabothriocephalidae, Tetragonocephalidae, Trilocullariidae and Triplotaeniidae; (ii) subfamilies—Aporhynchinae, Bothriocotylinae, Ditestolepidinae, Gilquiniinae, Gyrocoeliinae, Prosobothriinae and Rajotaeniinae; (iii) genera—*Abortilepis* for *Hymenolepis abortiva*, *Acotylolepis* for *H. anacetabulata*, *Allohaploparaxis* for *Drepanidotaenia sagitta*, *Aporodiorchis* for *Diorchis occlusus*, *Baerfainia* for *Raillietina* (*R.*) *anoploccphaloides*, *Chelacanthus* for *D. parvi[illegible]*, *Decacanthus* for *H. arcticus*, *Diorchiraillietina* for *Davainea contorta*, *Hispaniolepidoides* for *Hispaniolepis villosoides*, *Hymenosphenacanthoides* for *Hymenolepis ondatrae*, *Johria* for *Eugonodaeum testifrontosa*, *Jonesius* for *Diorchis ralli*, *Kowalewskius* for *Hymenolepis parvulus*, *Linstowius* for *D. serpentatus*, *Lobatolepis* for *H. lobulata*, *Lockerrauschia* for *H. intricatus*, *Maccallumiella* for *?Taenia patini*, *Mayhewia* for *H. corvi*, *Oncobothriocephalus* for *Ptychobothrium armatum*, *Parvibursa* for *H. chrysolampidis*, *Pseudamphicotyla* for *Amphicotyle quinquarii*, *Pseudocephalochlamys* for *Dibothriocephalus xenopi*, *Pseudoshipleya* for *Shipleyia farrani*, *Ptychobothrioides* for *Bothriocephalus spiraliceps*, *Schillerius* for *Diorchis parvogenitalis*, *Schmelzia* for *H. linderi*, *Spiniglans* for *Choanotaenia microsoma*, *Stylolepis* for *Sphenacanthus longistylosa*, *Triodontolepis* for *H. miniopteri*, *Tubanguiella* for *Kowalewskiella buzzardia*, *Vampirolepidoides* for *H. krishna* and *Woodlandia* for *H. phalacrocorax*; (iv) subgenera—*Oschmarenia* (*Chandleria*), *Hispaniolepis* (*Otidilepis*), *Endorchis* (*Pseudendorchis*), *Otobothrium* (*Pseudotobothrium*) and *Staphylocystis* (*Staphylocystoides*). New synonyms, new combinations and emendations are not included

2660—RYBICKA, K., 1960. [Department of Parasitology, Polish Academy of Sciences, Warsaw, Poland.] "Glycogen distribution during the embryonic development of the cestode *Diorchis ransomi* Schultz, 1940." **Experimental Parasitology. New York,** 10 (3), 263–275.

Rybicka has studied the distribution of glycogen in the mature proglottides and eggs of *Diorchis ransomi*. In all proglottides large droplets of glycogen occur in the parenchyma. The subcuticular parenchyma and Mehlis' gland contain a non-glycogenous material which, although positive to the periodic acid-Schiff technique, is not digestible with saliva. The testes, sperm, seminal vesicles and seminal receptacle contain no glycogen; the ovary and the wall of the cirrus pouch contain a small amount. The wall of the uterus and the vitellarium are rich in glycogen, as is the vitelline cell within early embryos. During cleavage the amount of glycogen remains unchanged as a globular mass in the embryo. In the pre-oncosphere and oncosphere all glycogen deposits are found in the outer membrane; non-glycogenous material occurs in the matrix of the mature oncosphere. Cestodes may be grouped into two on the basis of the absence or presence of glycogen in the vitellarium; the work of others on the distribution of glycogen in various cestodes is discussed. The paper is illustrated by six photomicrographs.

J. W. Smith

3361—SINGH, K. P., 1959. "Studies on Cestode Parasites from India. III. On a collection of Indian Hymenolepididae." **Indian Journal of Helminthology,** Year 1959, 11 (1/2), 43–62.

In Part III Singh reports, as new, three species of *Hymenolepis* and one of *Diorchis*. *H. smythi* n.sp. from *Nettapus coromandelianus* has eight rostellar hooks 55 μ to 62 μ long, a spined cirrus with a stylet and a spined sacculus accessorius. 19 species with a cirrus stylet are listed and briefly discussed. A single tapeworm from *Anas poecilorhyncha*, described as *H. cameroni* n.sp., has 20 rostellar hooks 16 μ long, lobed testes and an armed cirrus and is briefly compared with four related species. One specimen from *Sterna aurantia*, described as *H. lali* n.sp., has eight rostellar hooks 10 μ to 12 μ long and a lobed ovary. It is briefly compared with four related species. *H. himantopodis* is recorded from *Himantopus himantopus*, and *Hymenolepis multistriata* from *Podiceps ruficollis capensis*. *Diorchis gigantocirrosa* n.sp. is reported from *Fulica atra* and has ten rostellar hooks, 60 μ to 80 μ long, armed suckers and the cirrus pouch extends past the aporal excretory vessels. It is briefly compared with other species. There are 22 figures and 22 references.

J.M.

2286 RYBICKA, K., 1961. "Morphological and cytochemical studies on the development of the cestode *Diorchis ransomi* Schultz 1940." **Acta Parasitologica Polonica,** 9 (22/30), 279–304. [Polish summary pp. 303–304.]

The author describes in detail the development of *Diorchis ransomi* in *Fulica atra* and in the intermediate host, *Cypridopsis vidua*. Histochemical techniques were used in the study. Spermatogenesis in *D. ransomi* is thought to be like that in *Fasciola hepatica* as described by Govaert, 1960 [for abstract see Helm. Abs., 31, No. 560] and it is stressed that a non-glycogenous polysaccharide is present in Mehlis' gland. It is emphasized that during the development of the pre-oncosphere a reduction occurs in the total number of cells. The nature of the egg membranes in cestode eggs is discussed in detail with many references to previous work. The author states that *D. ransomi* grows very quickly after entering the haemocoel of the intermediate host owing to the growth and multiplication of the plastin cells. Further observation showed that the larva and adult cestode develop from the plastin cells.

H.H.W.

3863—RYBICKA, K., 1961. "Rozwój tasiemca *Diorchis ransomi* Schultz, 1940 w świetle badan cytologicznych i cytochemicznych." [Development of *Diorchis ransomi* as revealed by cytological and histochemical investigations.] [Abstract.] *Wiad. parazyt.*, 7 (2), Suppl. pp. 223–225. [Also in English pp. 225–227.]

1416—SPASSKAYA, L. P., 1961. [Cestodes of birds of Tuva. IV. Hymenolepididae of aquatic birds.] [Trudy Vsesoyuznogo Instituta Gelmintologii, 11 (for 1961), 241–260. [In Russian; German summary p. 247.]

Spasskaya lists 15 hymenolepidid species from aquatic birds in the Tuva area of the U.S.S.R. [excluding those dealt with in parts II and III of this work; for abstracts see Nos. 1417 below & 1415 above]. They include a new genus and species to be described elsewhere. *Aploparaksis furcigera*, *Choanotaenia megalops*, *Diorchis acuminata*, *D. anatinae*, *D. nyrocae*, *D. parvogenitalis* and *D. nyrocoides* n.sp. are described and figured and short notes and figures are given for *Anatinella meggitti*, *A. anatina* and *Wardium acquaticus*. *D. nyrocoides* from *Anas crecca* is differentiated from seven species of the genus principally by the diorchoid hooks, which are 0·036 mm. long with a handle of 0·009 to 0·010 mm., and by the cylindrical cirrus, which fully extruded measures up to 0·073 mm. in length and is armed with spines which point backwards and are 0·006 mm., becoming smaller towards the base of the cirrus.

G.I.P.

1770—SPASSKI, A. A., 1961. "Breve revisione Hymenolepididae. Parte prima." *Paras* 3 (3), 159–178. [English summary pp. 177–178.]

11 genera of the family Hymenolepididae are revised. *Abortilepis* n.subg. is reduced to a subgenus of *Microsomacanthus;* the new subgenus and type species, *Microsomacanthus* (*Abortilepis*) *abortiva* n.comb., are described. 10 species are withdrawn from *Aploparaksis* as follows: *Wardium haldemani* n.comb. for *A. haldemani*, *A. stefanskii* syn. of *Diorchis nyrocae*, *A. passerellae* is transferred to *Monorcholepis*, and *A. baeri*, *A. caballeroi*, *A. dujardini*, *A. elisae*, *A. cirrosa*, *A. fusus* and *A. sobolevi* because they do not conform to the generic diagnosis. *Allohaploparaxis* is suppressed and and *Aporodiorchis* considered synonymous with *Flamingolepis*. *Armadoskrjabinia tubicirrosa* is made *species inquirenda*. *Paradilepis lloydi*, *P. multihamata* and *P. varicanthos* are probably all synonyms of *P. urceus*. *P. longivaginosus* n.comb. for *Oligorchis longivaginosus* is probably synonymous with *P. rugovaginosus* and *P. simoni* and *P. minima* is a synonym of *P. scolecina*. Modifications to the diagnostic characteristics of Hymenolepididae are proposed. [See also No. 1771 below.] P.S.G.

2886—SPASSKI, A. A., 1963. [Principles of cestodology, edited by K. I. Skryabin. Vol. II. Hymenolepidoidea—tapeworms of wild and [illegible]. Part I.] *Moscow: Izdatelstvo Akademii Nauk SSSR*, 418 pp. [In Russian.]

This 2nd volume of the series "Principles of cestodology" [volume I on Anoplocephalata was published in 1951, see *Helminth. Abstr.*, 20, No. 1012 and, for abstract of English translation, 31, No. 2271] is part of a monographic study of the Hymenolepididae. A chapter on the history of the classification of the group is followed by a list of the 120 genera and their type species described within the family by the beginning of 1962, including an annotated list of insufficiently described and invalidated genera. The synonymy of a number of genera is discussed. *Hymenosphenacanthus* falls as synonym of *Retinometra* and 18 of the species included by Yamaguti (1959) in *Hymenosphenacanthus* are placed in *Retinometra* as new combinations. *Mayhewia* falls as synonym of *Passerilepis* with 7 new combinations. The chapter on the general morphology of the family includes a key to types of hooks and a list of types of sex organ distribution within proglottides.

The present volume deals systematically with Hymenolepididae of birds. There is a key to the genera of this group and a description of the type genus and species *Hymenolepis diminuta* (the species of this genus, parasitic chiefly in rodents, are to be dealt with in a later volume). The following genera are discussed and their synonyms, diagnoses and descriptions of the type species given: *Allohymenolepis*, *Amphipetrovia*, *Anatinella* (*Drepanidotaenia spinulosa* agrees in all respects except hooks with *Hymenolepis meggitti* Tseng-Shen, 1932 for which the genus was erected, but since there is an error in the description of the latter the name of the type species must be *A. spinulosa* n.comb. for *D. spinulosa*, synonym *A. meggitti*), *Arhynchotaenia*, *Australiolepis*, *Biglandatrium*, *Bisaccanthes*, *Capiuterilepis*, *Cladogynia*, *Cloacotaenia* (with 2 species), *Dilepidoides* and *Drepanidolepis* (in 1942 Lopez-Neyra placed *Taenia anatina* in *Drepanidotaenia* (*Drepanidolepis*) but Spasski considers that Lopez-Neyra's subgenus deserves generic status, naming the species *Drepanidolepis anatina* n.comb.). *Aploparaksis*, *Armadoskrjabinia*, *Dicranotaenia* and *Diorchis* are revised and emended generic diagnoses, keys to species (except for *Dicranotaenia*) and species descriptions given; the synonymy of species is reviewed. *Aploparaksis* now contains 34 named and 4 unnamed species, including *A. filiformis* n.sp. from *Arenaria interpres* of Kamchatka (far-eastern Russia). *Armadoskrjabinia* contains *A. medici*, *A. ellisi* n.comb. (for *H. ellisi*), *A. ficticia* n.comb. (for *Paradilepis ficticia*), *A. jaenschi* n.comb. (for *H. jaenschi*), *A. murrayensis* n.comb. (for *H. murrayensis*) and provisionally *A. parvicirrosa* and *A. parviuncinata*. *Dicranotaenia* retains *D. coronula* (with its subspecies), *D. fallax* and 3 insufficiently described species *D. lobata*, *D. querquedula* and *D. riggenbachi*. About 40 species remain in *Diorchis* including *D. spasskajae* n.sp. for *D. acuminata* Spasskaya, 1961 *nec* Clerc, 1902, *D. tuvensis* n.sp. for *D. parvogenitalis* Spasskaya, 1961 *nec* Matevosyan, 1945 (both characterized by the structure of hooks and an evaginated cirrus), *D. arsenjevi* n.comb. for *Skrjabinoparaksis arsenjevi*, *D. endacantha* n.comb. for *Aploparaksis endacantha*, *D. danutae* (Czaplinski, 1956) n.comb. for "*D.* (*Nudiorchis?*) *danutae* Czaplinski, 1956" and *D. danutae asiatica* n.subsp. for *D. danutae* Spasskaya, 1961 *nec* Czaplinski, 1956. Only Clerc's type specimens remain in *D. acuminata*. *D. chalcophapsi* is transferred to *Retinometra* as a new combination. G.I.P.

147—BELOKOBILENKO, V. T., 1962. [Helminth fauna of domestic ducks and geese in the Alma-Ata region.] In: Boev, S. N. [Editor], [Parasites of farm animals in Kazakhstan.] *Alma-Ata: Izdatel. Akad. Nauk Kazakh. SSR*, Vol. I, pp. 197–206. [In Russian.]

An annotated list is given of the 27 species of helminths found in domestic ducks and geese in the Alma-Ata region of the Kazakh SSR. The specimens of *Hymenolepis paracompressa* and *Diorchis nyrocae* are described; in the latter the structure of the cirrus differed from that described by Czaplinski. G.I.P.

915—SPASSKI, A. A. & BOBOVA, L. P., 1962. [Hymenolepididae from aquatic birds in Kamchatka.] *Trudy gel'mint. Lab.*, 12, 172–200. [In Russian.]

Rates of infection and hosts are given for the 24 species of Hymenolepididae found on examination of over 1,000 aquatic birds in Kamchatka (Far-Eastern USSR). Descriptions, based on the present material, are included for *Diorchis ransomi* (syn. *D. parvogenitalis*), *Drepanidotaenia lateralis* (syn. *D. laporalis*), *Hispaniolepidoides arcuata*, *Hymenosphenacanthus pittalugai*, "*Nadejdolepis paranitidulans* (Golikowa, 1959) Spassky n.comb.", *Sobolevicanthus dafilae* (which is considered valid), *S. stolli* and *Wardium clavicirrus*. *S. gladium* n.sp., from *Nyroca marila*, is similar to *S. dafilae* but differs in the shape of the distal end of the cirrus spine and in having a larger cirrus, bursa and copulatory porion and comparatively small testes; the ovary has 3 to 4 lobes and the uterus is irregularly lobed. G.I.P.

962—GRÄFNER, G., 1964. "Die Geflügelcestoden *Cotugnia digonopora* und *Diorchis stefanskii* für Deutschland erstmals nachgewiesen." *Angew. Parasit.*, **5** (4), 215–219. [English & Russian summaries p. 219.]

Cotugnia digonopora in domestic fowl and *Diorchis stefanskii* in duck are recorded from Germany for the first time. Brief descriptions of these species are given. H.D.C.

2801—MACKO, J. K., 1968. "O niektorých morfologických zvláštnostiach a abnormalitách pri druhoch rodu *Diorchis* Clerc, 1903 (Cestoda) z hostitela *Fulica atra*." *Biológia, Bratisl.*, 23 (2), 148–153. [German & Russian summaries p. 153.]

A 78·5% cestode infection of 140 *Fulica atra* in Slovakia was observed; all belonged to the genus *Diorchis*, namely *D. ransomi*, *D. inflata* and *D. brevis*. The morphological variations and abnormalities observed in these 3 species are described. G.I.P.

3268—SPASSKI, A. A., 1964. "Genera composition of the family Hymenolepididae." In: Ergens, R. & Ryšavý, B. [Editors], "Parasitic worms and aquatic conditions." Proceedings of symposium, Prague, Oct. 29–Nov. 2, 1962. *Prague: Czechoslovak Academy of Sciences*, pp. 231–237. [Discussion pp. 237–238.]

A list of 39 valid genera and type species of Hymenolepididae from birds is given. Some genera which have already lost their status or are not fully substantiated are also included. The following are invalid, synonymized or are new genera: *Allohaploparaksis* and *Stylolepis* are invalid; *Abortilepis* syn. of *Microsomacanthus*, *Apora* syn. of *Gastrotaenia*, *Aporodiorchis* syn. of *Flamingolepis*, *Cholacanthus* syn. of *Dicranotaenia*, *Decacanthus* syn. of *Wardium*, *Diplomonorchis* syn. of *Diorchis*, *Fuhrmanniella* syn. of *Echinocotyle*, *Hymenosphenacanthoides* and *Hymenosphenacanthus* syn. of *Retinometra*, *Kowalewskius* and *Hispaniolepidoides* syn. of *Microsomacanthus*, *Mayhewia* syn. of *Passerilepis*, *Orlovilepis* syn. of *Cloacotaenia*, *Skorikowia* and *Linstowius* syn. of *Aploparaksis*, *Troglocytilepis* syn. of *Variolepis*; *Laricanthus*, *Hamatolepis*, *Mackolepis* and *Wardoides* are all new genera, and consequently *H. teresoides* n.comb. for *Hymenolepis teresoides*, *L. lateralis* n.comb. for *Weinlandia lateralis*, *M. paucitesticulatus* n.comb. for *Oligorchis paucitesticulatus*, and *Wardoides nyrocae* n.comb. for *H. nyrocae* are proposed. P.S.G.

4083—MACKO, J. K. & RYŠAVÝ, B., 1968. "*Diorchis longihamulus* sp.n. (Hymenolepididae), a new cestode from *Gallinula chloropus cerceris* (Ralliformes)." *Folia parasit., Praha*, **15** (3), 267–270.

Diorchis longihamulus n.sp. from the small intestine of *Gallinula chloropus cerceris* taken at Las Villas, Cuba, differs from known species of the genus mainly in the length of rostellar hooks. L.F.K.

2472—PALM, V., 1965. "Ein Beitrag zur Helminthenfauna des Blesshuhns (*Fulica atra* L.) aus dem Raum von Potsdam." *Acta parasit. pol.*, **13** (39/46), 425–444. [Polish summary p. 424.]

18 species of helminths are recorded from 88 *Fulica atra* examined in the Potsdam district (near Berlin). *Dendritobilharzia anatinarum* is new for this host and this species and *Diorchis brevis* and *Echinostoma dietzi* are new for Germany; a further 6 species are reported for the first time for this host in Germany. Palm shows that *Metorchis pinguinicola* is a synonym of *M. xanthosomus* but disagrees with the transference of *Transcoelum oculeus* to *Hyptiasmus* and the synonymy of *Cyclocoelum microstomum* with *C. mutabile*; he also discusses the synonymy of *Amidostomum fulicae*. The paper includes a list of helminths known to occur in *F. atra*. G.I.P.

409—SPASSKI, A. A. & SPASSKAYA, L. P., 1968. [On the place of the protandrous cestode *Hymenocoelia chauhani* and the subfamily Hymenocoelinae (Dioecocestidae) in the Hymenolepididae.] *Dokl. Akad. Nauk SSSR*, **181** (5), 1294–1296. [In Russian.]

Hymenocoelia and its subfamily are transferred from Dioecocestidae to Hymenolepididae, which contains a number of species from Colubriformes in south-eastern Asia similar in structure to the type and only species of the genus, *H. chauhani*. The morphology of this species is discussed. Hymenocoelinae is made the tribe Hymenocoelini and in it are included, in addition to *Hymenocoelia*, the genera *Cladogynia*, *Flamingolepis*, *Octacanthus*, *Retinometra* and *Sobolevicanthus*. All have a crown of 8 large hooks, 3 testes, a cirrus stylet and other features in common. *Hymenolepis serrata*, *H. joyeuxi* and *Diorchis chalcophapsi* are placed in *Hymenocoelia* as new combinations. *Lallum* is transferred from Paruterininae in Dilepididae to Hymenolepididae and made synonymous with *Cloacotaenia*. The authors suggest that Johri, when describing the type and only species *L. magniparuterina* from *Anas crecca* had in fact an aberrant form of *C. megalops* with a larger number of testes. *A. crecca* is an obligatory host of *C. megalops*. The authors consider that Paruterininae should be raised to family level as already suggested by Skryabin in 1940 (see *Zool. Zh.*, **19** (1)). G.I.P.

1394—DOBROKHOTOVA, O. V., 1969. [Life-cycles of certain species of the genus *Diorchis* (Cestoda, Hymenolepididae), parasites of aquatic birds in Kazakhstan.] [Abstract.] [All-Union Conference (7th) on the natural focal occurrence of diseases and general problems in animal parasitology, Alma-Ata, 1969. General helminthology.] pp. 19–21. [In Russian.]

4402—KORNYUSHIN, V. V., 1966. [The cestode fauna of aquatic birds wintering in the Tendra Bay of the Black Sea.] *Problemy Parazit.* [*Trudy ukr. respubl. nauch. Obshch. Parazit.*], 5, 60–65. [In Russian.]

964 KORNYUSHIN, V. V. [Cestode fauna of the Black Sea population of *Tadorna tadorna* L.] *Zbirnik Prats' Zoologichnogo Muzeyu* (1969) No.33, 36-47 [Uk, en]

Sixteen species of cestodes were recovered from 17 *Tadorna tadorna* dissected at the Black Sea coast in the Kherson region of the Ukraine. 12 of these cestodes are recorded from *T. tadorna* for the first time, 8 of them are redescribed and 2 new species are described and figured. *Diorchis tadornae* n.sp. has 10 rostellar hooks which are 0.05 mm long and differs from *D. lintoni* and *D. spinata* in lacking a parabasal bulb on the cirrus and from *D. lintoni* also by the shape of the hooks. *Sobolevicanthus spasskii* n.sp. has 8 rostellar hooks 0.090 to 0.095 mm long and differs from *S. gracilis* and *S. stolli* by the form of the cirrus which has a broadened end with an awl-shaped stylet. JAD

495 CZAPLIŃSKI, B. *Diorchis ovofurcata* sp.n. (Cestoda, Hymenolepididae) from *Aythya fuligula* and *A. nyroca* in Poland. *Acta Parasitologica Polonica* (1972) 20 (1/11) 63-73 [En, pl] Zakład Biologii Ogólnej i Parazytologii AM, Warsaw, ul. Chałubińskiego 5, Poland.

Diorchis ovofurcata n.sp. from the jejunum and ileum of *Aythya nyroca* and *A. fuligula* in Guber Lake, Mazurian Lakeland, Poland, is described and illustrated by 14 line-drawings and 3 photomicrographs. *Diorchis* sp. of Jarecka, 1960 from *A. marila* in Lake Mamry Północne is also assigned to *D. ovofurcata*. The type specimen has 10 rostellar hooks of the diorchis type (30μ long), the ratio of blade to total length being 1:3.4; in 11 specimens, the hook length was from 27 to 31μ, mean 29μ. For differential diagnostic purposes, annotations are given for the following species having rostellar hooks of a similar size: *D. excentricus, D. wigginsi, D. spasskajae, D. elisae, D. vigisi, D. asiatica* and *D. danutae*. JWS

ANNOTATED BIBLIOGRAPHIES	Period covered	Number of References	Price $	Price £
1. *Cysticercus ovis* and *Taenia ovis*	1932-69	59	1.30	0.50
2. *Taenia saginata* and *T. solium* in Lebanon, Turkey and Yugoslavia	1932-69	50	1.30	0.50
3. Helminthology in Iraq	1932-69	71	1.80	0.70
4. Humpsore (Stephanofilariasis) in domestic animals	1932-69	71	1.80	0.70
5. Skin lesions in domestic animals caused by *Elaeophora*, *Rhabditis* & *Parafilaria*	1932-69	55	1.30	0.50
6. Helminths and plant nematodes of Morocco	1932-70	111	2.60	1.00
7. *Angiostrongylus*	1932-71	210	7.00	2.70
8. Factors influencing the development of *Ascaris* eggs	1932-71	120	3.10	1.20
9. Helminths in archaeological and pre-historic deposits	1910-72	32	1.30	0.50
10. Neurological involvement in *Trichinella spiralis* infection in man	1932-70	51	1.60	0.60
11. White tip disease (*Aphelenchoides besseyi*) of rice in Africa and the tropics	1913-72	150	6.20	2.40
12. Helminths in dogs in Japan	1960-72	89	2.60	1.00
13. Nematodes on soybean (*Glycine max*)	1932-72	184	5.70	2.20
14. Oswaldocruzia (Nematoda)	1930-73	29	1.30	0.50
15. Transmission of plant viruses by nematodes	1930-73	120	3.10	1.20
16. Plant nematology in Venezuela	1932-72	21	1.30	0.50
17. Diorchis	1931-72	46	3.10	1.20

These can be obtained from the Commonwealth Institute of Helminthology, The White House, 103 St. Peter's Street, St. Albans, Herts, England.